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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/729,196	12/05/2003	Gary L. Swoboda	TI-34670	8832
23494 7590 06/14/2007 TEXAS INSTRUMENTS INCORPORATED P O BOX 655474, M/S 3999 DALLAS, TX 75265			EXAMINER ELPENORD, CANDAL	
			ART UNIT 2609	PAPER NUMBER
			NOTIFICATION DATE 06/14/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/729,196

Applicant(s)

SWOBODA ET AL.

Examiner

Candal Elpenord

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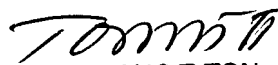
-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

**DANG T. TON****SUPERVISORY PATENT EXAMINER**

- 1) ☒ Responsive to communication(s) filed on 05 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-5 and 7-10 is/are rejected.
- 7) ☒ Claim(s) 3 and 6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. **Claims 4 and 7** are objected to because of the following informalities:

For claim 4, it is suggested to applicant to change "the program counter" to ---a program counter---- recited in line 3. Similar problem exists in **claim 7** line 3.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-2 and 4** are rejected under 35 U.S.C. 102 (e) as being anticipated by **Swoboda et al. (US 6,985,848 B2)**.

For claim 1, **Swoboda et al.** discloses a method wherein a timing trace stream (see **Fig. 8 box 81 and 82**) having a logic signal associated with each clock cycle (see **abstract and Fig. 22 box 220**), the timing trace stream being transmitted in packets groups having a plurality of packets (see **column 10 lines 28-40**), a method of compressing the timing trace stream, the method comprising:

(a) when each of a preselected number of clock cycles have at least one logic "1" signal and at least one logic "0" signal associated with each clock cycle, transmitting a

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standard group of packets (**see Fig. 9**) having a logic signal associated with each of the preselected number of clock cycles (**see column 4 line 29-36**); and

(b) when the preselected number of clock cycles has only one of the logic "1" and the logic "0" signals associated with each clock cycle, transmitting a compressed group of packets (**see column 13 line 34-40**), the packets including an indicia of the one logic signal, the packets including a signal group representing the preselected number (**see column 13 line 3-10**).

For claim 2, Swoboda et al. discloses a method wherein each group of packets has at least one header packet (**see Fig. 19 box 190 and column 16 line 50-54**) and at least one information packet (**see Fig. 21 box 210 and column 17 line 53-58**).

For claim 4, Swoboda et al. discloses a method comprising:
representing an activity of the program counter (**see Fig. 4 and Fig.11 box 112**) with a first logic signal during a clock cycle (**see column 11 line 38-48**); and representing a non-activity of the program counter with a second logic signal during an associated clock cycle (**see column 13 line 3-12**).

4. **Claims 5, and 7-10** are rejected under 35 U.S.C. 102(e) as being anticipated by **Kohashi et al. (US 2004/0078690 A1)**.

For claim 5, Kohashi et al. discloses an apparatus (**see Fig. 1 box 100**) for generating a timing trace stream in target processor, a logic signal being associated with each target processor clock cycle (**see Fig.1 box 108**), the apparatus comprising of:

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(a) a logic unit (**see Fig. 2 box 213**) responsive to preselected number of logic signals, the logic unit providing a first control signal when all of the preselected logic signals are different, the logic unit providing a second control signal when all of the preselected logic signals are the same (**see paragraph 0055 line 17-19**).

(b) a first storage unit (**see Fig. 6 box 609 and Fig. 9**) responsive to the preselected logic signals for storing each logic signal in predetermined storage location (**see paragraph 0068 line 1-9**), the first storage unit responsive to the first control signal for transferring the contents of the first storage unit (**see paragraph 00073 line 9-11**); and

(c) a second storage unit (**see Fig. 10**) responsive to preselected logic signals for storing the current logic signal in a preestablished storage unit location (**see paragraph 0074 line 3-9**), the second storage unit storing a signal group representing a multiple of the preselected number (**see paragraph 0077 line 10-17**), the second storage unit responsive to the second logic signal for transferring the contents of the second storage unit (**see paragraph 0073 line 16-18**).

For claim 7, Kohashi et al. discloses an apparatus wherein each of the preselected number of logic signals represents an activity of the program counter during an associated clock cycle (**see paragraph 0050 line 1-8**).

For claim 8, Kohashi et al. discloses an apparatus further comprising a first in/first out storage unit, the contents of the first and the second storage unit being transferred to the first in/first out storage unit (**see paragraph 0070 line 9-17**).

For claim 9, Kohashi et al. discloses a system for transferring data concerning the operation of target processor (**see Fig. 1 box 110**) to a host processing unit (**see Fig. 1 box 121**) the system comprising:

(a) a program counter trace stream generation unit (**see Fig. 1 box 108**), the program counter trace stream generation unit (**see Fig. 3**) generating a trace stream (**see Fig. 8 box 85**) identifying each activity of the program counter (**see paragraphs 0049 line 1-3 and 0050 line 1-8**); and

(b) a timing trace stream generation unit (**see Fig. 1 box 108**), the timing trace stream generation unit generating a timing trace stream with a logical signal each clock cycle, the timing trace stream including one type of signal group relating a logic signal with each of a predetermined number of clock cycles (**see paragraph 0056 line 1-11**), the timing trace stream including a second type of signal groups identifying the predetermined number of clock cycles having the same logic signal (**see paragraph 0056 line 11-18**).

For claim10, Kohashi et al. discloses a system wherein the trace streams include header packets (**see Fig. 14**) and information packets (**see Fig. 14 and paragraph 0008 line 1-7**)

Allowable Subject Matter

5. **Claims 3 and 6** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Swoboda et al. (US 2001/0034597 A1), Floyd et al. (US 2002/0178403 A1) and Swoboda et al. (US 7,076,419 B2) are cited to show various methods and systems for compression of a timing trace stream.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Candal Elpenord whose telephone number is (571) 270-3123. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on (571) 272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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CE

A handwritten signature in black ink, appearing to read 'T. Ton', with a long horizontal stroke extending from the end.

DANG T. TON
SUPERVISORY PATENT EXAMINER